Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Integrated Geometry Final Exam REVIEW *2012-2013 (80 Total Points)***

**PART 1: VOCABULARY.**  Be able to match the definitions/descriptions to the given vocabulary words.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 1. | Complementary Angles |  |  |  |
|  |
|  | 2. | Segment |  |  |  |
|  |
|  | 3. | Vertical Angles |  |  |  |
|  |
|  | 4. | Adjacent Angles |  |  |  |
|  | 5. | Midpoint |  |  |  |

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|  |  |  |  |
| --- | --- | --- | --- |
|  | 6. | Angle Bisector |  |
|  | 7. | Angle |  |
|  | 8. | Obtuse angle |  |
|  | 9. | Acute angle |  |
|  |  |  |  |
|  | 10. | Straight angle |  |
|  | 11. | Right angle |  |

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| --- | --- | --- | --- |
|  | 12. | Ray |  |
|  |  |  |  |
|  | 13. | Collinear |  |
|  |  |  |  |
|  | 14. | Line |  |
|  |  |  |  |
|  | 15. | Coplanar |  |
|  |  |  |  |
|  | 16. | Initial Point |  |
|  |  |  |  |
|  | 17. | Intersection |  |
|  |  |  |  |

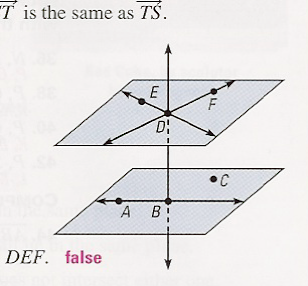
**PART 2: PICTURE MATCH.**  Match the picture to the **best** vocabulary term. *(1 pt. each)*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 18. |  |  |  |  |
|  | 19. |  |  |  |  |
|  | 20. |  |  |  |  |
|  | 21. |  |  |  |  |
|  | 22. |  |  |  |  |

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| --- | --- | --- | --- | --- |
| \_\_\_\_\_\_\_\_\_\_ 23. | http://www.mathworksheetsgo.com/sheets/algebra/linear-equation/slope/images/picture-of-linear-equation-graph.png |  |  |  |
| \_\_\_\_\_\_\_\_\_\_ 24. | http://www.ck12.org/flx/render/perma/resource/default/image/user%3Ack12editor/2d3f1805ccdc9701f2f1d487967f87be.png |  |  |  |

**Part 3: TRUE OR FALSE.** Use the picture at right to decide whether the statement is *true* or *false*.

Be able to answer True or False Questions about this picture.



Example:

\_\_\_\_\_\_\_\_\_ Plane DEF is parallel to Plane ABC

or

\_\_\_\_\_\_\_\_\_ Point B and Point C are collinear.

**Part 3 (continued): TRUE OR FALSE.** Use the picture at right to decide whether the statement is *true* or *false*.

|  |  |  |  |  |  |  |  |
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|  | 30. | and  are a VERTICAL angles. |  | |  |  |  |
|  | 31. | A angle is COMPLEMENTARY to angle. | | |  |  |  |
|  | 32. | A segment has ONEendpoints. | | |  |  |  |
|  | 33. | An acute angle measures between  and | | |  |  |  |
|  | 34. | and  are complementary angles. | |  |  |  |  |

**Part 4: MULTIPLE CHOICE.**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 35. | Simplify: 1.3 – (15 + 5)2 | | | | | | |
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|  | 36. | Simplify: –|–5| + (–x)2 | | | | | | |
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|  | 37. | Evaluate: 40 + 28 ÷ 4 – (–33) | | | | | | |
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|  | 38. | What is the greatest common factor (GCF) of these monomials: | | | | | | |
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|  | 39. | Simplify the expression: (-5x3)(3x4) | | | | | | |
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| 40. | Estimate the measure  of : | | | | | | | | | | | | | | |
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|  |  | | |  |  | | |  |  | | |  |  | | |
| A. | 130o | | | B. | 15o | | | C. | 90o | | | D. | 55o | | |
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| 41. | A computer screen shows two points at the coordinates: P1 (11,67) and P2 (86,14). What are the **coordinates of the midpoint** between the two points? | | | | | | | | | | | | | | |
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| 42. | What is the **distance** between the two points from #41? Round to the nearest tenth. | | | | | | | | | | | | | | |
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| **Multiple Choice – Calculating Area**   |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 43. | Calculate the Area of the **Trapezoid**. | | | | | | | | |  |  | | | | | | | | |  | | | | | | | | | |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 44. | Find the Area of the **Circle**. | | | | | | | | |  | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 45. | The inside rail of a running track consists of a rectangle with a semi-circle at each end as shown in the figure below. Find the ***approximate*** area surrounded by the track rail. | | | | | | | | |  | | | | | | | | | |  |  |  |  |  |  |  |  |  | | | | | | | | | | | | | | | | | |
| |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 46. | Find the Area of the Shaded Region, if each Circle has a radius of 7 cm. | | | | | | | | |  | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 47. | The length of a rectangle is 7.8 ft. The area of the rectangle is 48 ft2. Which is the closest approximation to the width of the rectangle? | | | | | | | | |  | | | | | | | | | |  |  |  |  |  |  |  |  |  | |  | | | | | | | | | |  | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 48. | | What is the Area of the shaded region? | | | | | | | | | | | | | | |
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**Part 5: OPEN-ENDED.** Answer each of the questions and place your answer in the space provided.

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| 49. a) Solve for y.  b) Find LM  c) Find MN  **LN = 163 units** | | | | 50. | |  | | --- | | = \_\_\_\_\_\_ | | = \_\_\_\_\_\_ | | = \_\_\_\_\_\_ | |
| y = \_\_\_\_\_\_\_\_ | LM = \_\_\_\_\_\_\_\_ | | MN = \_\_\_\_\_\_\_\_ |  | |
| 51.  bisects ∠ABD.  Find x and m∠ABD. | | | | CartesianCoordinatePlane52. Graph the following equation on the coordinate plane. | |
| x = \_\_\_\_\_\_\_\_ | | m∠ABD = \_\_\_\_\_\_\_\_ | |  | |

**Word Bank**

Acute Equilateral

Obtuse Isosceles

Right Scalene

Equiangular

**Classify the Triangles.**  Classify the triangles by their angles and sides.

Use the word bank to the right. *(2 points each)*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 53. |  | 54. |  | 55. |  |
|  | Sides: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  | Sides: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  | Sides: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
|  | Angles: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  | Angles: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  | Angles: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

**Triangle Sum and Exterior Angle Theorem.** Show your work. Write answers in the spaces provided. *(1pt ea.)*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 56. |  |  | 57. |  | *(2 pts.)* |
|  |  |
|  |  |
|  |  |

**Is it a Triangle?** Determine if each set of numbers would make a triangle. Circle YES or NO. *(1 point each).*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 58. | 12.5, 13, 24.5 | YES |  | 59. | 4, 28, 32 | YES |
| NO | NO |

**Pythagorean Theorem.** Find the missing side of each Right Triangle. *(3 points each).*

**Pythagorean Theorem: **

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 60. |  | Missing side:  ------------------ |  | 61. |  | Missing side:  ------------------ |
|  |  |  |  |  |  |  |